



UNITED STATES PATENT AND TRADEMARK OFFICE™

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/645,963	08/22/2003	Preston Whitcomb	05689-016001	8398

26161 7590 06/27/2006

FISH & RICHARDSON PC
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER

ADAMS, GREGORY W

ART UNIT	PAPER NUMBER
----------	--------------

3652

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/645,963	WHITCOMB ET AL.	
	Examiner	Art Unit	
	Gregory W. Adams	3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-15 and 17-24 is/are pending in the application.
- 4a) Of the above claim(s) 18-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-15 and 17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

General Comments

This application has been transferred to Examiner Gregory W. Adams.

Claim Objections

Claims 5, 7, 9, & 26 are objected to because of the following informalities: these claims depend from now cancelled claim 3. Prior to being cancelled claim 3 depended from claim 2. Thus, the Examiner assumed that claims 5, 7, 9 & 26 should depend from claim 2. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 & 12-14, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa (JP 11163091) (previously cited) in view of Vits (US 3,993,301).

With respect to claims 1 & 12-14, Ichikawa disclose a first robotic arm 4, second robotic arm comprising a transfer arm 5 having first and second ends, end effector 80 attached at a second end, and controller. Ichikawa discloses an end effector that can catch and release an interleaf surface, and does not disclose a applying a positive pressure to an interleaf surface facing an end effector. Vits discloses an end effector 1 that applies a positive pressure to an interleaf surface (C2/L36-44). Vits teaches that positive pressure causes the top sheet of paper, e.g. porous paper, "to be raised so that it abuts the flat surface of the [end effector]". Vits teaches that within the art of

Art Unit: 3652

singulating sheets from the top of a stack, merely applying a negative pressure to suck the top sheet is not enough as there is a "high probability that, apart from the top sheet, sheets positioned directly therebelow are also raised". C1/L20-30. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the end effector of Ichikawa to include positive pressure, as per the teachings of Vits, to lift only one sheet.

2. Claims 2, 5-11 & 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa (JP 11163091) (previously cited) in view of Vits (US 3,993,301) and Petvai et al. (US 5,569,328) (previously cited).

With respect to claim 2, 9-11, Ichikawa discloses a transfer arm having a first end and second end, and does not disclose a counterweight. Petvai discloses a counterweight 17 attached to a first end of a transfer arm 18 for the purpose of balancing a transfer arm (C4/L37-39). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transfer arm of Ichikawa to include a counterweight, as per the teachings of Petvai, to balance a transfer arm.

With respect to claims 5-8, Ichikawa discloses a sensor 22, 23 that uses reflectance.

With respect to claims 25-26, Ichikawa discloses an end effector configure to apply variable forces.

Art Unit: 3652

3. Claims 15, 17 & 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa (JP 11163091) (previously cited) in view of Vits (US 3,993,301) and Petvai et al. (US 5,569,328) (previously cited).

With respect to claims 15, 17 & 27, Ichikawa disclose a first robotic arm 4, second robotic arm comprising a transfer arm 5 having first and second ends, end effector 80 attached at a second end, and controller. Ichikawa discloses an end effector that can catch and release an interleaf surface, and does not disclose a counterweight or applying a positive pressure to an interleaf surface facing an end effector.

Vits discloses an end effector 1 that applies a positive pressure to an interleaf surface (C2/L36-44). Vits teaches that positive pressure causes the top sheet of paper, e.g. interleaf, "to be raised so that it abuts the flat surface of the [end effector]". Vits teaches that within the art of singulating sheets from the top of a stack, merely applying a negative pressure to suck the top sheet is not enough as there is a "high probability that, apart from the top sheet, sheets positioned directly therebelow are also raised". C1/L20-30. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the end effector of Ichikawa to include positive pressure, as per the teachings of Vits, to lift only one sheet.

Petvai discloses a counterweight 17 attached to a first end of a transfer arm 18 for the purpose of balancing a transfer arm (C4/L37-39). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the transfer arm of Ichikawa to include a counterweight, as per the teachings of Petvai, to balance a transfer arm.

Response to Arguments

Applicant did not submit arguments with the June 5, 2006 RCE request.

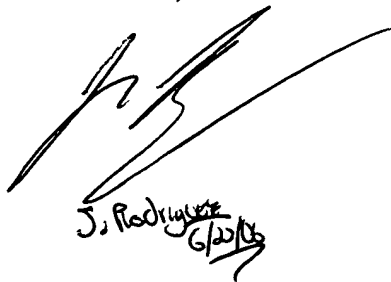
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th., 8:00-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GWA



J. Rodriguez
6/20/06